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| APPLICATION NO.              | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/573,230                   | 01/05/2007  | Masaaki Ino          | 57419/E349          | 4946             |
| 23363                        | 7590        | 09/23/2011           | EXAMINER            |                  |
| CHRISTIE, PARKER & HALE, LLP |             |                      | KARPINSKI, LUKE E   |                  |
| PO BOX 7068                  |             |                      | ART UNIT            | PAPER NUMBER     |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/573,230

**Applicant(s)**

INO ET AL.

**Examiner**

LUKE KARPINSKI

**Art Unit**

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 July 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 5, 6 and 9-24 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 5, 6, and 9-24 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-853)  
Paper No(s)/Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Claims***

Claims 1-4, 7, and 8 are canceled.

Claims 5, 23, and 24 are amended.

Claims 5, 6, and 9-24 are pending and under consideration in this action.

### ***Rejections***

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Applicant Claims

2. Determining the scope and contents of the prior art.
3. Ascertaining the differences between the prior art and the claims at issue, and resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**1. Claims 5, 6, 17, 18, 23, and 24 are rejected under 35 U.S.C. 103(a)** as being unpatentable over USPN 6,514,512 to Puterka et al.

### ***Applicant Claims***

Applicant claims a formulation consisting of an insect derived pheromone and a calcined crystalline substrate containing said pheromone, wherein said substrate particles have a particle size from 2-20 microns and are fired at 500-700 degrees for 5-120 minutes.

Applicant further claims percentages of said pheromone in relation to said crystalline material, specific crystalline materials, and a more specific firing time.

***Determination of the Scope and Content of the Prior Art***  
***(MPEP §2141.01)***

Puterka et al. teach pesticide delivery systems consisting of a finely divided particulate material containing a pest control agent, wherein up to 100% of said particulate material is heat treated (abstract), said particulate material having an average particle size of 10 microns or less (col. 2, lines 31-35), said pest control agent may be a pheromone (col. 3, lines 51-57), said particulate material as a calcined clay and said heat treatment comprising heating to a temperature of 400-1100 degrees for 1-15 minutes and up to 24 hours (col. 4, lines 42-65), as pertaining to claims 5, 6, 17, 18, 23, and 24.

***Ascertainment of the differences between the prior art and the claims***  
***(MPEP 2141.01)***

Puterka et al. do not explicitly disclose an example wherein the claimed components are combined into a single composition. However, Puterka et al. do teach particulate formulations for pest control and teach that said formulations may contain each claimed component including specific particulate materials, and active components, and heat treatments.

***Finding of prima facie Obviousness Rational and Motivation***

***(MPEP 2142-2143)***

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to select each component and combine them as instantly claimed because Puterka et al. suggest that the instant components can be combined or mixed together. Puterka et al. teach the inclusion of each component and even though the combination of all claimed components is not exemplified it would have been obvious for one of ordinary skill to select each one and combine them to formulate the instant composition. In a prior art reference it is not necessary for all of the possible compositions to be exemplified in order for the art to render an invention obvious. The instantly claimed compositions are nothing more than a combination of known components used for their known properties to make a known product.

Regarding the 'consisting of' and 'consisting essentially of' language, Puterka et al. do not require that any components other than those named are included in said formulations and do not require any steps other than claimed for said heat treatment.

Regarding the language to 'a communication disturbing agent', the mere fact that a pheromone is used reads on this limitation as insects communicate through pheromones and any pheromone introduced into an environment would disturb the normal communication of said insects.

Regarding the limitation to a 'powder' form, Puterka et al. teach particulate materials with a size range of about 10 microns. This reads on a powder.

From the teachings of the reference, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed

invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

**2. Claims 5, 6, and 9-24 are rejected under 35 U.S.C. 103(a)** as being unpatentable over USPN 5,415,131 to Dodman in view of USPN 6,514,512 to Puterka et al.

***Applicant Claims***

Applicant claims are delineated above and incorporated herein.

***Determination of the Scope and Content of the Prior Art (MPEP §2141.01)***

The teachings of Puterka et al. are delineated above and incorporated herein.

Dodman teaches compositions for attracting an animal (abstract) consisting of a pheromone and montmorillonite or attapulgite, wherein said clays may have been calcined (example 3), as pertaining to claims 5, 6, 13-16, 23, and 24.

Dodman further teaches 0.1-50,000 ppm (example 3), which reads on 0.0001-5% (col. 7, lines 6-20), as pertaining to claims 9-12.

Dodman further teach that pheromone communication with animals is known and is especially prevalent in insects (col. 5, lines 60-67), as pertaining to claims 5, 23, and 24.

***Ascertainment of the Difference between Scope the Prior Art and the Claims (MPEP §2141.012)***

Although Dodman does not explicitly disclose formulations comprising insect pheromones as claimed in claims 5, 23, and 24, Dodman does produce pheromone formulations and states that pheromone is especially prevalent in insects. This deficiency in Dodman is cured by Puterka et al. Puterka et al. teach pesticide delivery systems (abstract) comprising calcined clay carrier (col. 4, line 52) and pheromones as an active agent (col. 3, line 57).

Further, Dodman does not teach calcination parameters, including times and temperatures, as claimed in claims 5 and 17-24. This deficiency is cured by Puterka et al. Puterka et al. teach methods for calcining clay particulates consisting of heating to 500-1100 degrees for 1 minute to 15 hours (col. 4, lines 42-65).

Further, Dodman does not teach a particle size, as claimed in claims 5, 23 and 24. This deficiency is cured by Puterka et al. Puterka et al. teach said particulate materials having a size range of 10 microns or less (col. 2, lines 30-35).

***Finding of Prima Facie Obviousness Rational and Motivation***  
***(MPEP §2142-2143)***

Regarding the limitation of using an insect pheromone, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to produce the pheromone compositions of Dodman with an insect pheromone as taught by Puterka et al. in order to produce the invention of instant claims 5, 23, and 24.

One of ordinary skill in the art would have been motivated to do this because Dodman teaches compositions consisting of pheromone and an inert carrier and that animals as well as insects may be controlled with said pheromones and Puterka et al.



teach compositions comprising the same carriers and insect pheromones. Therefore it would have been obvious to utilize the insect pheromone of Puterka et al., in the formulations of Dodman in order to produce a formulation consisting of only a pheromone and carrier and to use an insect pheromone to control insects.

Regarding the calcination limitations, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to produce the formulations of Dodman with said clay carriers calcined at 500-1100 degrees for 301 minute to 15 hours as taught by Puterka et al. in order to produce the invention of instant claims 5, 23, and 24.

One of ordinary skill in the art would have been motivated to do this because Dodman teaches using calcined clays and Puterka et al. teach known times and temperatures for calcining said clays. Therefore it would have been obvious to utilize the calcination steps of Puterka et al., with the clays of Dodman in order to use known calcination methods for said clays.

Regarding the particle size limitations, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to produce the formulations of Dodman comprising insect pheromones and having an average particle size of 10 microns or less in order to produce the invention of instant claims 5, 23, and 24.

One of ordinary skill in the art would have been motivated to do this because Dodman teaches calcined clays comprising pheromones for animal and insect control and Puterka et al. teach calcined clay formulations comprising insect pheromones

wherein said particles have an average particle size of 10 microns or less. Therefore it would have been obvious to utilize the particle size ranges of Puterka et al. for insect pheromone formulations, with the clays of Dodman in order to use known size range for formulations for controlling insects.

From the teachings of the reference, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### ***Response to Arguments***

Applicant's arguments filed 7/21/2011 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Claims 5, 6, and 9-24 are rejected.

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUKE KARPINSKI whose telephone number is (571)270-3501. The examiner can normally be reached on monday-friday 9-5 est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LEK

/Johann R. Richter/

Supervisory Patent Examiner, Art Unit 1616